Ozone in Missouri

Naturally occurring ozone in the upper atmosphere protects the earth from the sun's harmful rays. But ground-level ozone is an irritant that damages lung tissue and aggravates respiratory disease. Ground-level ozone is formed when heat and sunlight mix with volatile organic compounds (VOC) and nitrogen oxide emissions in the lower atmosphere. People show various respiratory symptoms upon exposure to ozone. New data indicate that even healthy young adults may experience respiratory problems at ozone levels as low as .08 parts-per-million (ppm) if they remain outdoors for extended periods. This could include individuals whose jobs require a great deal of time outdoors, such as road construction workers, or even individuals working in their lawns or gardens. However, persons most susceptible to ozone include children, the elderly and individuals with pre-existing respiratory problems.

Number of Ozone Site Exceedances Reported

Approximately 4 million of Missouri's 5.4 million residents live in St. Louis and Kansas City where the likelihood of ozone formation is greatest. The National Ambient Air Quality Standard of .12 ppm is often exceeded on hot, sunny summer days. The number of days the standard is exceeded in a given year generally reflects both weather conditions and the pollutants in the area's air.

In 1999, the St. Louis ozone nonattainment area reported 13 exceedances of the one-hour ozone standard. For the first time in several years, however, no exceedances were reported in Kansas City.